

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/00346

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/435 C12N15/12 C12N5/06 C12N5/04 A01K67/02

A01K67/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, MEDLINE, EMBL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PRINCE J T ET AL: "Construction, cloning and expression of synthetic genes encoding spider dragline silk" BIOCHEMISTRY, AMERICAN CHEMICAL SOCIETY. EASTON, PA, US, vol. 34, 1995, pages 10879-10885, XP002120421 ISSN: 0006-2960 cited in the application Fig.1 the whole document	1-3,6-8, 10,11, 15-19, 24,31, 40,42, 43,45, 48,49, 56,57,69
X	US 5 756 677 A (COLGIN MARK ET AL) , 26 May 1998 (1998-05-26) cited in the application abstract; examples 1-3	1,6-8, 15-19, 22,42, 45,48, 69,87

-/-

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

& document member of the same patent family

Date of the actual completion of the international search

11 June 2003

Date of mailing of the international search report

24/06/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Mateo Rosell, A.M.

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 01 94393 A (GUEHRS KARL HEINZ ;IPK INST FUER PFLANZENGENETIK (DE); CONRAD UDO) 13 December 2001 (2001-12-13)</p> <p>abstract page 4, line 15 -page 9, line 12 page 10, line 5-10; example 1 figures 3,10A,10B</p>	<p>1,2, 15-17, 24,37, 42,48, 50,69, 82,87</p>
X	<p>BECKWITT RICHARD ET AL: "Sequence conservation in the C-terminal region of spider silk proteins (Spidroin) from Nephila clavipes (Tetragnathidae) and Araneus bicentenarius (Araneidae)." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 269, no. 9, 1994, pages 6661-6663, XP002243783 ISSN: 0021-9258 cited in the application abstract; figure 1</p>	20
X	<p>HINMAN M B ET AL: "ISOLATION OF A CLONE ENCODING A SECOND DRAGLINE SILK FIBROIN NEPHILA-CLAVIPES DRAGLINE SILK IS A TWO-PROTEIN FIBER" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 267, no. 27, 1992, pages 19320-19324, XP002243784 ISSN: 0021-9258 cited in the application abstract; figure 2</p>	20
X	<p>GUERETTE PAUL A ET AL: "Silk properties determined by gland-specific expression of a spider fibroin gene family." SCIENCE (WASHINGTON D C), vol. 272, no. 5258, 1996, pages 112-115, XP008018215 ISSN: 0036-8075 abstract; figures 1A,2A</p>	20
A	<p>HINMAN M B ET AL: "Synthetic spider silk: a modular fiber" TRENDS IN BIOTECHNOLOGY, ELSEVIER, AMSTERDAM, NL, vol. 18, no. 9, 1 September 2000 (2000-09-01), pages 374-379, XP004214264 ISSN: 0167-7799 cited in the application the whole document</p>	<p>1-18,22, 45,48</p>

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>HAYASHI C Y ET AL: "Evidence from flagelliform silk cDNA for the structural basis of elasticity and modular nature of spider silks"</p> <p>JOURNAL OF MOLECULAR BIOLOGY, LONDON, GB, vol. 275, 6 February 1998 (1998-02-06), pages 773-784, XP002120422</p> <p>ISSN: 0022-2836</p> <p>cited in the application abstract</p> <p>page 779, right-hand column, paragraph 4</p> <p>-page 781, right-hand column, paragraph 2</p>	17-19
A	<p>GOSLINE J M ET AL: "The mechanical design of spider silks: From fibroin sequence to mechanical function."</p> <p>JOURNAL OF EXPERIMENTAL BIOLOGY, vol. 202, no. 23, December 1999 (1999-12), pages 3295-3303, XP002243785</p> <p>ISSN: 0022-0949</p> <p>cited in the application</p>	
P,X	<p>LAZARIS ANTHOULA ET AL: "Spider silk fibers spun from soluble recombinant silk produced in mammalian cells."</p> <p>SCIENCE (WASHINGTON D C), vol. 295, no. 5554, 2002</p> <p>- 18 January 2002 (2002-01-18), pages 472-476, XP002243786</p> <p>18 January, 2002</p> <p>ISSN: 0036-8075</p> <p>the whole document</p>	1-89
P,X	<p>RF SERVICE: "Mammalian cells spin a spidery new yarn"</p> <p>SCIENCE (WASHINGTON D C), vol. 295, no. 5554,</p> <p>- 18 January 2002 (2002-01-18) pages 41-42, XP002243787</p> <p>page 42, last paragraph</p>	1-89
T	<p>DATABASE MEDLINE 'Online!'</p> <p>US NATIONAL LIBRARY OF MEDICINE (NLM), BETHESDA, MD, US; May 2002 (2002-05)</p> <p>LI MIN ET AL: "'Study on construct and expression of synthetic genes encoding spider dragline silk in Escherichia coli!'"</p> <p>Database accession no. NLM12192868</p> <p>XP002243938</p> <p>abstract</p> <p>& SHENG WU GONG CHENG XUE BAO = CHINESE JOURNAL OF BIOTECHNOLOGY. CHINA MAY 2002, vol. 18, no. 3, May 2002 (2002-05), pages 331-334,</p> <p>ISSN: 1000-3061</p>	1-3,6,7, 17,40, 45,48, 49,69,87

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Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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			EP 0750665 A1	02-01-1997
			JP 9510349 T	21-10-1997
			WO 9525165 A1	21-09-1995
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